

the Schiff reference discloses that the pulse generator is contained in a metallic casing, citing column 1, lines 56-58. The Examiner stated the connector head is a portion of the pulse generator, citing column 2, lines 37-39, and hence the Examiner stated the connector head in the Schiff reference is metallic.

The Examiner also noted that Figure 1 of the Schiff reference shows a prior art pacemaker and a connector head and Figure 2 shows the inventive arrangement of Schiff with an improved connector head. The Examiner stated both Figures 1 and 2 contain the same reference numerals, indicating that the Schiff invention is an improvement over the prior art, and that the materials of construction of the connection head in the prior art are metal, and therefore the improved connection head also is metallic.

Applicants respectfully submit that despite these statements in the Schiff reference, a person of ordinary skill in the art still would assume that the connector head in all embodiments, including the prior art, disclosed in the Schiff reference is non-metallic. As noted in Applicants' previous response, it is conventional for the connector head to be non-metallic, such as being made of epoxy or silicone material. Applicant also acknowledged that pacemakers with completely metallic housings, for which the connection head also is metallic, are known, however, these are the exception rather than the rule, and a person of ordinary skill in the art, unless being explicitly informed in a reference that the connection head is metallic, would assume that the connection head is, as is conventional, non-metallic silicone or epoxy.

The Schiff reference certainly does not provide any explicit statement, or showing in the drawings, that the connection head is metallic. The Examiner has relied on assumptions based on general statements in the Schiff reference regarding

the pulse generator itself. As can be seen from the sectional view shown in Figure 3 of the Schiff reference, however, it must be the case that the connection head is non-metallic, otherwise the arrangement shown in Figure 3 would be inoperative. In the sectional view shown in Figure 3 of the Schiff reference, a ceramic insulator 47 is provided, and the tubular element 48 has an opening therein which allows a portion of this ceramic insulator to be exposed to the exterior of the tubular member 48. Nevertheless, the tubular member 48 extends to the ends of the spring contacts 39 and 41, and electrical contact between the metallic tube 48 and the contacts 39 and 41 appears to be unavoidable. This means that if the tube 48 were inserted into a metallic connection head, electrical contact between the metallic connection head and the contacts 39 and 41 also would be unavoidable, notwithstanding the presence of the insulator 47. If this were the case, the connector arrangement shown in Figure 3 would be inoperable. Moreover, as the Examiner has noted, Schiff consistently uses the same reference numerals to refer to the relevant components in all embodiments, and therefore if one embodiment would be inoperable if the connection head were metallic, this means, according to the statements made by the Examiner, that all embodiments would be inoperable, given the use of the same reference numerals.

This situation is avoided if the connection head in all embodiments of the Schiff reference is non-metallic.

In order for a reference to anticipate a claim, the reference must explicitly or inherently disclose all elements of the claim, as arranged and operating in the claim. The level of disclosure is comparable to that required by §112, first paragraph, i.e., the reference must provide an enabling disclosure for each limitation in the claim against which it is being applied. Many cases of the Federal Circuit state that an anticipating reference must put the claimed invention "in the possession of the public," meaning that the alleged description of the invention must be sufficient to teach a person of ordinary skill in the art how to make and use the invention.

In the absence of an explicit statement in the Schiff reference that the connection head is metallic, and in view of the reasons discussed above which would cause a person of ordinary skill in the art to believe the Schiff reference would be inoperative if the connection head were metallic, Applicants respectfully submit the Schiff reference does not constitute an anticipation of claim 7, nor of claim 10 depending therefrom.

These arguments were discussed in a telephone interview with the Examiner on July 21, 2003, and the Examiner acknowledged it may be necessary to re-open prosecution with a non-final action, wherein the rejection based on the Schiff reference is changed to an obviousness rejection under §103, combining the structure disclosed in the Schiff reference with the fact that pacemakers with metallic connection heads are known, even though the connection head in the Schiff reference might be non-metallic.

Applicants respectfully submit that such a combination would not have been obvious to a person of ordinary skill in the art, for the reasons noted above. Clearly one could not simply substitute a metallic connection head for the non-metallic (in

Applicants' view) connection head in the Schiff reference, because of the aforementioned electrically conductive paths which would unavoidably result if and when the metallic tube 48 disclosed in Schiff were connected in a metallic connection head. The insulation problems that would have to be first solved would deter a person of ordinary skill in the art from making such a combination. Such a combination therefore would be counterintuitive to a person of ordinary skill in the art. Even if a person of ordinary skill in the art had the insight to employ a structure as shown in Figure 3 of the Schiff reference in a metallic connection head, the solution to the insulation problems would necessarily result in a substantial re-design of either the Schiff structure or the metallic connection head structure, rather than a simple modification. Such a combination that requires significant re-design in order to be made operative is not a proper basis for substantiating a rejection under 35 U.S.C. §103(a).

As in the previous Office Action, claims 8, 9, 11, 12 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schiff in view of Truex et al., and claims 16 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schiff in view of Peers-Trevarton. Since Applicants do not agree that the Schiff reference discloses all of the elements of independent claim 7, from which each of these claims depend, it is still the position of the Applicants that even if the Schiff structure were modified in accordance with the teachings of either of these secondary references, a pacemaker as set forth in the dependent claims, each of which embodies the subject matter of claim 7 therein, still would not result.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

Steven H. Noll (Reg. 28,982)

SCHIFF, HARDIN & WAITE
CUSTOMER NO. 26574
Patent Department
6600 Sears Tower
233 South Wacker Drive
Chicago, Illinois 60606
Telephone: 312/258-5790
Attorneys for Applicants.

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